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ABSTRACT

The ACE model, an impact model that offers a number of specific, interrelated equations to provide quantitative results of college operation in the local economy, is discussed. The components affected include local business, governments, and individuals, with both positive and negative economic impacts on each group. A table presents Cypress College Economic Impact on Local Community. A list of 25 references is provided. (DB)

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ECONOMIC IMPACT OF COMMUNITY COLLEGES ON LOCAL ECONOMIES

Paper presented to the Community College Social Science Association
National Fall Meeting; November 7, 1974; Dallas, Texas

by

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ECONOMIC IMPACT OF COMMUNITY COLLEGES ON LOCAL ECONOMIES

Background

While not usually noted in academic papers, the author's motivation in this paper may be of interest to other community college faculty. For teaching, not research - especially outside that of student achievement, is often stereotyped as the community college faculty member's sole concern. The author, however, would disagree with such stereotype, and would in fact urge greater academic research for community college faculty. As a teacher, I am certainly interested in student achievement and teaching technique (20). But as an economist, I am also interested in investigating applications of economic theory to real problems (1,6,14). In fact, I would even argue that research involvement expands the teacher's effectiveness via increase questioning and personal growth.

Aside from the teaching - research debate, if there really is an issue (Perhaps administrative support and funding?), the author is motivated as a taxpayer to investigate exactly what impact his community college tax dollar has on the local community. And from a personal view, perhaps I wanted to "justify" my teaching activities! From all such motivational factors, I would urge other community college faculty to review this papers technique and impact model, with possible application to their own college.

Economic Impact of Community Colleges

As many economists and social scientists are well aware, the literature of regional growth analysis (1,3,8,9,19) and investment in human capital (2,5,15,17,18,24,25) has expanded enormously in recent years. The logical juncture of these fields - educational contribution to local economies - should also come as no surprise, and has produced a growing literature of its own (4,6,10,11,12,22,23). Still further, specific contribution of community colleges to local economic growth has been investigated (6,12,13,14).

it is this latter specific avenue of research that this paper reviews and applies.

In reviewing the previous literature references, a number of claims are made as to the economic benefits of education (community college in particular) to local economic growth. Such benefits include:

1. Increase in technical skills and incomes of students, with accompanying increased spending in local businesses.
2. Reduced costs to local businesses via the availability of a skilled labor force.
3. College and staff expenditures and bank deposits in local businesses, increased by local multiplier (spending generates additional spending - 18) effects.
4. College services provided local residents at reduced costs, or provided when not otherwise available. (There may be some offset here, as the college may be a "competitor" with local businesses in some aspects, eg., college auto shop repairs with local garages.)
5. Local business revenue generated by college activities and programs which attract visitors into the community.
6. Increase in property values resulting from college location in the community. (There may be some offset here, as from tax revenue lost via tax-exempt college properties.)

Given this lengthy list of possible economic benefits of college operation in local economies, research studies of quantitative impact appear warranted. Further, there are several disbenefits of college operation noted (possible competition with local businesses, loss of tax revenue from exempt facilities, local government costs of services provided to the college) which also require quantitative estimate (6,23). To provide such research on quantitative impact, this paper now turns to the specific

model developed for the American Council on Education by John Caffrey and Herbert H. Isaacs (6).

The College Economic Impact Model

The specific model used in this study originates from the ACE publication by Caffrey and Isaacs (6). While other regional growth analysis models are available (4,11,13,14,19,22), the Caffrey-Isaacs model appears well-suited to use by community college faculty. Its use entails little computational difficulty and great flexibility of local application is possible, although a fair amount of statistical data must be assembled.

In describing the purpose and use of the ACE model, the publication summarizes:

> This publication is intended to serve in two ways: as a general guide to consideration of the fair assessment of the economic impacts of an institution of higher education on its environment and as a specific guide to the undertaking of objective studies of the positive and negative effects of these impacts (6:1).

This impact model offers a number of specific, interrelated equations to provide quantitative results of college operation in the local economy. The components affected include local businesses, governments, and individuals, with both positive and negative economic impacts on each group. Figure 1 presents a schematic overview of impact areas, and specific equations are provided to assess each area.

As to research utilizing the ACE model, the publication contains an exemplary study of the Claremont Colleges (California), with explanation of dollar impacts and data sources (6:27-33). Another application of this model was undertaken by Harrisburg (Pennsylvania) Area Community College, with somewhat similar quantitative impacts (23). The author's research investigated the economic impact of Cypress College (California) on the North Orange County Community College District. The results of this study are summarized in Table 1.

It should be noted that Table 1 contains economic impact only on the business and individual sectors, for which data on college expenditures and enrollment and county financial reports are easily obtainable. The government impact study is still underway, involving more extensive data-gathering from local government sources. While individual analysis and evaluation will vary on Table 1 results, the author found the dollar impacts larger than expected:

1. $11.2 million net positive impact on local businesses.
2. $2.4 million impact on local banks' credit base.
3. $13.5 million of local business property committed to college-related business.
4. 1,008 jobs generated by college operation.
5. $8.3 million personal income generated by college operation.
6. $1.0 million in durable goods purchased via incomes from college operation.

While there will likely be some amount of economic offset resulting from study of government sector impact, this study does suggest the community college is indeed a valuable economic partner of the local community. (Perhaps review this at tax override or bond vote time?)

Conclusions

This study does suggest a significant economic contribution of the community college to the local economy. It may further suggest similar studies by other community colleges as to their own economic impact on their local economies. Further application of the model might include a comparative economic benefits analysis of community colleges with state colleges and universities, or perhaps with other public institutions as hospitals or government agencies. In general, this basic concept of economic cost-benefit analysis could be applied across a wide spectrum of college operations (14,24,25).

A word of caution should be noted, however, in that this study examines only the quantitative aspects of college operation in the local community. Surely there are significant qualitative aspects of college impact which may be equal, or greater, in importance. The provision of educational opportunity, personal development, cultural elevation, and community service are qualitative impacts which would greatly enlarge college impact in the local community.

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FIGURE 1

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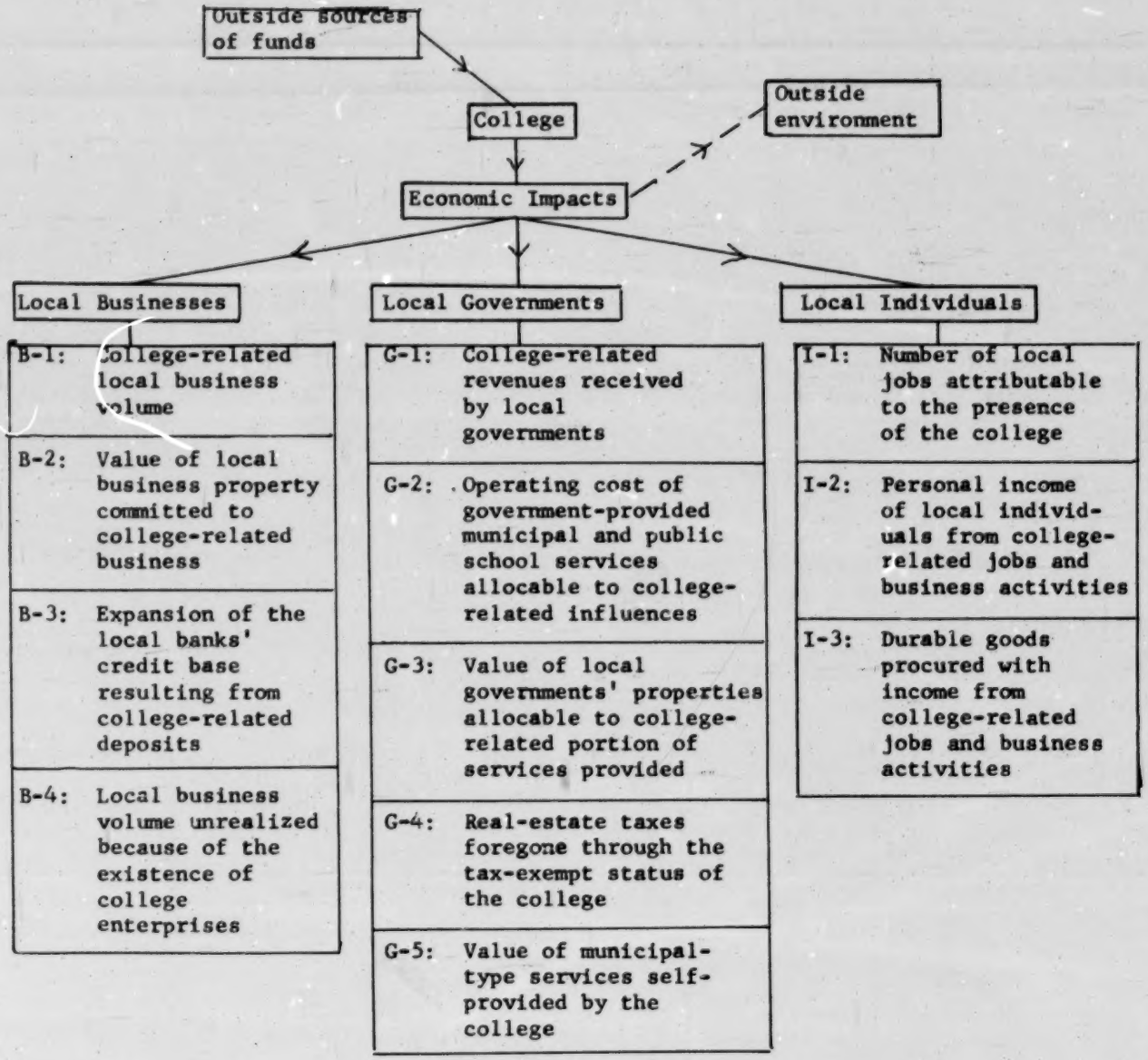
Economic Impacts on Local Businesses, Governments, and Individuals


Outside sources of funds
College
Outside environment
Economic Impacts
Local Businesses
Local Governments
Local Individuals
B-1: College-related local business volume
B-2: Value of local business property committed to college-related business
B-3: Expansion of the local banks' credit base resulting from college-related deposits
B-4: Local business volume unrealized because of the existence of college enterprises
G-1: College-related revenues received by local governments
G-2: Operating cost of government-provided municipal and public school services allocable to college-related influences
G-3: Value of local governments' properties allocable to college-related portion of services provided
G-4: Real-estate taxes foregone through the tax-exempt status of the college
G-5: Value of municipal-type services self-provided by the college
I-1: Number of local jobs attributable to the presence of the college
I-2: Personal income of local individuals from college-related jobs and business activities
I-3: Durable goods procured with income from college-related jobs and business activities

John Caffrey and Herbert H. Isaacs, ESTIMATING THE IMPACT OF A COLLEGE OR UNIVERSITY ON THE LOCAL ECONOMY (Washington, D.C.: American Council On Education, 1971) p. 10.

TABLE I

Cypress College Economic Impact on Local Community

Model	$ Impacts
College-Related Local Business Volume	$ 12,600,981
College-Related Local Expenditures	7,000,545
Local Expenditures by the College	228,768
Local Expenditures by Faculty and Staff	1,218,277
Expenditures by Faculty and Staff for Local Rental Housing	297,507
Local Nonhousing Expenditures by Local Faculty and Staff	833,020
Local Expenditures by Nonlocal Faculty and Staff	87,750
Local Expenditures by Students	5,431,500
Local Miscellaneous Expenditures, Exclusive of Room and Board, by Students Obtaining Local Room and Board in Group Arrangements or with Parents	1,755,000
Expenditures by Students for Local Rental Housing	1,755,000
Local Nonhousing Expenditures by Students Who Rent Local Housing	1,579,500
Local Expenditures by Nonlocal Students	338,000
Local Expenditures by Local Fraternities, Sororities, and Other Student Living Groups	4,000
Local Expenditures by Visitors to the College	122,000
Purchases from Local Sources by Local Businesses in Support of Their College-Related Business Volume	4,200,327
Local Business Volume Stimulated by the Expenditure of College-Related Income by Local Individuals Other than Faculty, Staff, or Students	1,400,109

TABLE I (Continued)

Value of Local Business Property Committed to College-Related Business	$ 13,512,118
Value of Local Business Real Property Committed to College-Related Business	12,000,000
Value of Local Business Inventory Committed to College- Related Business	1,512,118
Value of Local Business Property, Other then Real Property and Inventory, Committed to College-Related Business	---------
Expansion of the Local Banks' Credit Base Resulting from College-Related Deposits	2,427,705
Local Business Volume Unrealized Because of the Existence of College Enterprises	378,546
Number of Local Jobs Attributable to the Presence of the College	1,008
Personal Income of Local Individuals from College-Related Jobs and Business Activities	$ 8,333,860
Durable Goods Procured with Income from College-Related Jobs and Business Activities	1,000,063

Note: Cypress College (California) is located in the North Orange County Community College District, which was the "local community" in this study.

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